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FIELD DAY

The Articles for This Month

jULY

The big event for June is Field Day, June 25,26. The photograph above shows the headquarters of the MVRC operation. It is also one of the three collections of stations in operation. Very complete details of the whole operation are given on the next page.

The article was written by Dave Hassall, WA5DJJ, who worked hard to make Field Day a success.

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Field Day 2022

Dave Hassel 1WA5DJJ

This year's Radio Amateur's Field Day was a real Challenge in many ways for our small radio club. The first MAJOR issue was the Summer Heat of temperatures in the high 90's in the early afternoons. Deploying Technical challenging portable antennas in this kind of heat is made much more difficult. Some of the antennas were installed in the very early mornings just after sunrise or late in the evening in the cooler part of the day. Our 3 Motor homes with Air Conditioning made the operating conditions for the stations really comfortable for the groups of operators that came in and left at all hours of the day and night trying to keep our planned 4 transmitter effort on the air.

The Field day Operations Plan was to operate 2 Station on SSB Phone (One on 20M continuously and another station roving among the Amateur bands from 160M through 10 Meters.) One station each on specialty modes like CW and DIGITAL operations because of their better scoring potential of approximately double value of a SSB contact. It was a sound operations plan that has been used to success for many years. Even for a small club this takes a lot of operators and an additional operator helper called a logger. (the logger is the person who records the contacts in the specialized computer program and provides a second pair of ears to help the radio operator in deciphering the weak audio signals heard.) The Radio Shifts for the operator and loggers was set to 3 hours because of the inherent noise and multiple station QRM makes this job very difficult over this period and reliefs are needed to keep this effort sharp.

That was the Plan. Now This is the reality.

Furman Smith KF5KHL hosted the 20M SSB station and the CW station in his larger motor home. Earl N5TMT hosted and supervised the DIGITAL mode station in his motor home. Dave WA5DJJ hosted the second SSB Station in his motor home. That part of the plan worked very well. We spread out in Bin's Construction Company's Lot at the corner of Missouri and Don Rrouser. Setup was begun on Friday night and finished up early Saturday morning with the aid of Bruce KI5GUG, Charles KG5BVE, and Richard KC5EVR. Some others lent a hand in this effort also. We were setup and ready to go.

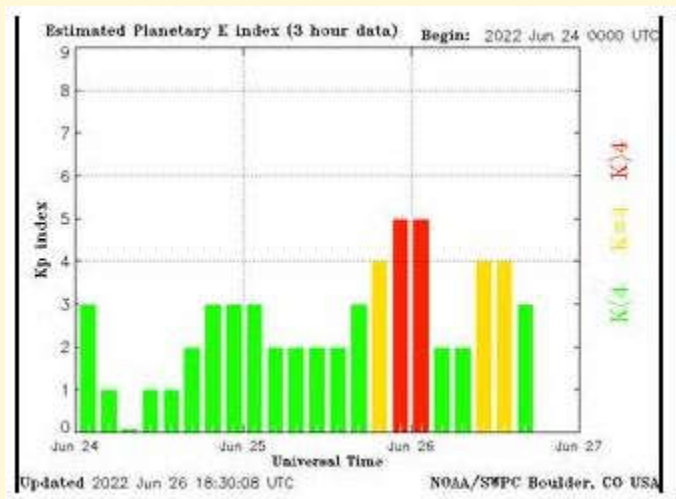
At High Noon The operators and Loggers were ready and the FIELD DAY operations period started. But mother nature had a twist. The earth started passing through a Coronal Hole solar wind stream whose effects were starting to be real-

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ized on the earth just as FIELD DAY started. This caused a level 4 and 5 K index and a Geomagnetic Storm with varying intensity. The effect on Amateur Radio signals caused the propagation of Radio signals between two stations VARY DIFFICULT at best and in some cases IMPOSSIBLE. Signals were often unreadable and very weak and varying in intensity over time.

Here is the K index chart from [SOLARHAM.COM](https://solarham.com) showing the period during the FIELD DAY operation:

This effect on the ionosphere severely limited the both the distance and the number of contacts that our 4 stations could contact and pass our message of 4A NEW MEXICO. There were some bright spots in the propagation in the operating hours between 2 AM and dawn where the K index was in the 2 range that allowed some contacts with the east coast of the USA on 40M. But for the rest of the time



we were only working the states of Oklahoma in the east to California in the west. All the contacts were mostly weak and varying rapidly in signal strength on all signal bands between 20M and 80M.

Difficulties in installing the antenna for the CW station which has been one of our mainstays of FIELD DAY operation kept that station off the air for the period coupled with the rapid fluctuation of signal quality limited our DIGITAL stations ability to communicate. But the effects of the geomagnetic storm and other difficulties in trying to establish communications is EXACTLY what FIELD DAY is designed to teach us how to operate under difficult conditions and this FIELD DAY was NO exception. Our FIELD DAY crew STILL made contacts, Operated for 24 Hours, and completed the task no matter what happened.

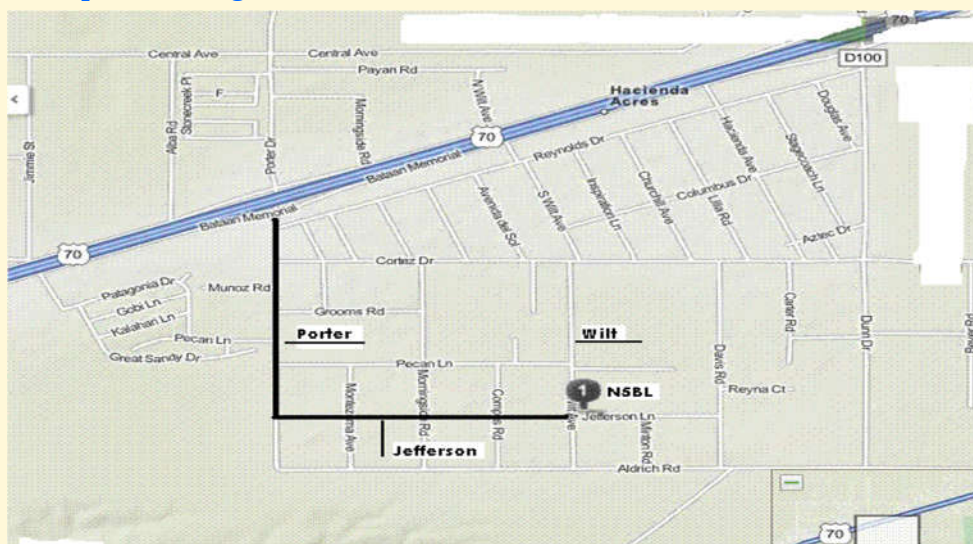
There were some BRIGHT SPOT observations that gives us hope. We had two people show up who were not Amateur Radio Operators but were merely visitors seeking out a chance to meet and join us. Our most recent Amateur Radio Technician KI5VVL came by and helped out operating. The Area in and around the 3 operating motor homes were groups of Amateurs discussing the ongoing operations, antennas, and what we need to do to make this better. I had 26 folks logged in on my sign up sheet and there were some who missed or forgot to log in. Our Club's two younger members were in there operating and working very hard. It

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is BRIGHT SPOTS like these that makes that annual FIELD DAY OPERATION a success for me and I have been doing this since my first FIELD DAY in 1959. May we always have a FIELD DAY to teach us about remote EMERGENCY Amateur Radio operations, So, if we ever have to do it for REAL, We can do it with ease because of what FIELD DAY has taught us.

CLUB INFORMATION

The MVRC Clubhouse is located at the intersection of Wilt and Jefferson. To find the clubhouse, set your destination on your GPS receiver as 32 degrees 22.961 minutes and -106 degrees 41.44 minutes. If you don't own a GPS, take the Porter exit near the firehouse on US 70. It is about 5 miles east from the I 25 interchange. Go south on Porter until you come to Jefferson. There turn left toward the mountains and go to Wilt. You will see the beam on the corner. The treasurer would be delighted to receive your contribution for landscaping and furnishing. More information at <http://n5bl.org>



Officers

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IT	Charles Combs	KG5BVE	649-1071	kg5bve@gmail.com

JOIN THE MESILLA VALLEY RADIO CLUB

Name(s) _____

EMAIL _____

If you want confirmation that your payment was received and processed, please include your email address

Street Address _____ PO Box# _____

City _____ Zip _____ Phone _____

To join the Mesilla Valley Radio Club or renew your membership, please complete this form and print or cut out. Send it to **"Treasurer, MVRC, PO Box 1443, Las Cruces, NM 88004"** with annual dues (\$35 single, \$45 family)

Date: _____ Method of payment: Check No. _____ Other _____

Call Sign(S) _____ Family Membership Yes _____ No _____

License Class (E, A, G, T, N) _____ ARRL Member? (Y/N) _____

Are You a ARRL Volunteer Examiner (Y/N) _____

Would you like to be added to the MVRC reflector (email information system)? _____

Interests

Computer _____ Contests _____ Digital _____ Elmer _____ Emergency Communications _____

Field Day _____ Packet _____ Programs _____ Public Service _____ Publicity _____ RFI _____

Repeater _____ Social _____ License Classes _____ Teach Licensing Classes _____

Volunteer Examiner _____ QRSS _____ Other _____

Comments